

Work Order ID 137533

137533

Page 1

Monday, October 05, 2015 11:16:16 AM

Item ID: D6201

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: "T" Extrusion

Start Date: 10/5/2015 Start Qty: 20.00

20

Cust Item ID:

Required Date: 10/5/2015 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan: MCS Date: OCT 6 15 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D6201	Rev A

100

0.00

100

PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 30046

a)Description: T-beam extrusion

b) 4.00" x 4.00" x 0.375"

c) Minimum Ultimate Tensile Strength ≥ 38ksi

d) Minimum Yield Tensile strength ≥ 35ksi

e) Material: 6061-T6/T6511 (QQ-A-200/8)

f)Material certification required

***EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE
SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH
AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS,
OR DENTS.***

MUST BE WELL PACKAGE, IF NOT IT WILL BE REFUSE

CY OCT 07 2015 20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																		
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																																																																			
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																																																																			
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																																																																			
Large Fab ☐	Composite ☐	Supplier ☐																																																																				
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval																																																																		
Description Work Order Deviation		Disposition		Completed By																																																																		
				Lead hand / Supervisor Approval Verification																																																																		
				QC / QA Coordinator Approval																																																																		
Root Cause		FAULT CATEGORY																																																																				
<table style="width:100%; border: none;"> <tr><td style="border: none;">Environment ☐</td><td style="border: none;">No Re-verification ☐</td></tr> <tr><td style="border: none;">Design ☐</td><td style="border: none;">Operator ☐</td></tr> <tr><td style="border: none;">Doc/Data ☐</td><td style="border: none;">Offset/Setup ☐</td></tr> <tr><td style="border: none;">Equip/Tooling ☐</td><td style="border: none;">Supplier ☐</td></tr> <tr><td style="border: none;">Handling/Pre ☐</td><td style="border: none;">Training ☐</td></tr> <tr><td style="border: none;">Material ☐</td><td style="border: none;">Use for Testing ☐</td></tr> <tr><td style="border: none;">Internal Transport ☐</td><td style="border: none;">Poor Information ☐</td></tr> <tr><td style="border: none;">Tribal Knowledge ☐</td><td style="border: none;">Rushing ☐</td></tr> <tr><td style="border: none;">LOA ☐</td><td style="border: none;">Product Improvement ☐</td></tr> <tr><td style="border: none;">Substation ☐</td><td style="border: none;">Process Improvement ☐</td></tr> <tr><td style="border: none;">Past Expiry Date ☐</td><td style="border: none;">Manufacturing Process ☐</td></tr> <tr><td style="border: none;">Misidentified ☐</td><td style="border: none;">Past Due ☐</td></tr> </table>	Environment ☐	No Re-verification ☐	Design ☐	Operator ☐	Doc/Data ☐	Offset/Setup ☐	Equip/Tooling ☐	Supplier ☐	Handling/Pre ☐	Training ☐	Material ☐	Use for Testing ☐	Internal Transport ☐	Poor Information ☐	Tribal Knowledge ☐	Rushing ☐	LOA ☐	Product Improvement ☐	Substation ☐	Process Improvement ☐	Past Expiry Date ☐	Manufacturing Process ☐	Misidentified ☐	Past Due ☐	<table style="width:100%; border: none;"> <tr><td style="border: none;">Pressure/Forced ☐</td></tr> <tr><td style="border: none;">Bending ☐</td></tr> <tr><td style="border: none;">Centre Not Concentric ☐</td></tr> <tr><td style="border: none;">Cracks ☐</td></tr> <tr><td style="border: none;">Crimp/Kink/Ripple/Wave ☐</td></tr> <tr><td style="border: none;">Cuffs ☐</td></tr> <tr><td style="border: none;">Crushing ☐</td></tr> <tr><td style="border: none;">Heat Treat ☐</td></tr> <tr><td style="border: none;">Wave/Twist in Tube ☐</td></tr> <tr><td style="border: none;">Marks/Chatter ☐</td></tr> </table>	Pressure/Forced ☐	Bending ☐	Centre Not Concentric ☐	Cracks ☐	Crimp/Kink/Ripple/Wave ☐	Cuffs ☐	Crushing ☐	Heat Treat ☐	Wave/Twist in Tube ☐	Marks/Chatter ☐	<table style="width:100%; border: none;"> <tr><td style="border: none;">Temperature/Cure ☐</td></tr> <tr><td style="border: none;">Set-up ☐</td></tr> <tr><td style="border: none;">BOM/Route ☐</td></tr> <tr><td style="border: none;">Broken/Damage/Defect ☐</td></tr> <tr><td style="border: none;">Inspection Incomplete/Unqualified ☐</td></tr> <tr><td style="border: none;">Contamination ☐</td></tr> <tr><td style="border: none;">Countersink ☐</td></tr> <tr><td style="border: none;">Cut Too Short ☐</td></tr> <tr><td style="border: none;">Instructions Incomplete/Unclear ☐</td></tr> <tr><td style="border: none;">Drill Holes ☐</td></tr> </table>			Temperature/Cure ☐	Set-up ☐	BOM/Route ☐	Broken/Damage/Defect ☐	Inspection Incomplete/Unqualified ☐	Contamination ☐	Countersink ☐	Cut Too Short ☐	Instructions Incomplete/Unclear ☐	Drill Holes ☐	<table style="width:100%; border: none;"> <tr><td style="border: none;">Power Loss/Surge ☐</td></tr> <tr><td style="border: none;">Folio/Program ☐</td></tr> <tr><td style="border: none;">Grain ☐</td></tr> <tr><td style="border: none;">Weld ☐</td></tr> <tr><td style="border: none;">Wrong Stock Pulled ☐</td></tr> <tr><td style="border: none;">Out of Sequence ☐</td></tr> <tr><td style="border: none;">Off-set ☐</td></tr> <tr><td style="border: none;">Mislabeled ☐</td></tr> <tr><td style="border: none;">Fit/Function ☐</td></tr> <tr><td style="border: none;">Misaligned/off center ☐</td></tr> </table>	Power Loss/Surge ☐	Folio/Program ☐	Grain ☐	Weld ☐	Wrong Stock Pulled ☐	Out of Sequence ☐	Off-set ☐	Mislabeled ☐	Fit/Function ☐	Misaligned/off center ☐	<table style="width:100%; border: none;"> <tr><td style="border: none;">Positioned Wrong ☐</td></tr> <tr><td style="border: none;">Outside Dimensions ☐</td></tr> <tr><td style="border: none;">Over/Under tolerance ☐</td></tr> <tr><td style="border: none;">Part Incorrect ☐</td></tr> <tr><td style="border: none;">Part Lost/Missing ☐</td></tr> <tr><td style="border: none;">Part Moved ☐</td></tr> <tr><td style="border: none;">Drawing ☐</td></tr> <tr><td style="border: none;">Finish ☐</td></tr> <tr><td style="border: none;">Misread ☐</td></tr> <tr><td style="border: none;">Turning Sequence ☐</td></tr> </table>	Positioned Wrong ☐	Outside Dimensions ☐	Over/Under tolerance ☐	Part Incorrect ☐	Part Lost/Missing ☐	Part Moved ☐	Drawing ☐	Finish ☐	Misread ☐	Turning Sequence ☐
Environment ☐	No Re-verification ☐																																																																					
Design ☐	Operator ☐																																																																					
Doc/Data ☐	Offset/Setup ☐																																																																					
Equip/Tooling ☐	Supplier ☐																																																																					
Handling/Pre ☐	Training ☐																																																																					
Material ☐	Use for Testing ☐																																																																					
Internal Transport ☐	Poor Information ☐																																																																					
Tribal Knowledge ☐	Rushing ☐																																																																					
LOA ☐	Product Improvement ☐																																																																					
Substation ☐	Process Improvement ☐																																																																					
Past Expiry Date ☐	Manufacturing Process ☐																																																																					
Misidentified ☐	Past Due ☐																																																																					
Pressure/Forced ☐																																																																						
Bending ☐																																																																						
Centre Not Concentric ☐																																																																						
Cracks ☐																																																																						
Crimp/Kink/Ripple/Wave ☐																																																																						
Cuffs ☐																																																																						
Crushing ☐																																																																						
Heat Treat ☐																																																																						
Wave/Twist in Tube ☐																																																																						
Marks/Chatter ☐																																																																						
Temperature/Cure ☐																																																																						
Set-up ☐																																																																						
BOM/Route ☐																																																																						
Broken/Damage/Defect ☐																																																																						
Inspection Incomplete/Unqualified ☐																																																																						
Contamination ☐																																																																						
Countersink ☐																																																																						
Cut Too Short ☐																																																																						
Instructions Incomplete/Unclear ☐																																																																						
Drill Holes ☐																																																																						
Power Loss/Surge ☐																																																																						
Folio/Program ☐																																																																						
Grain ☐																																																																						
Weld ☐																																																																						
Wrong Stock Pulled ☐																																																																						
Out of Sequence ☐																																																																						
Off-set ☐																																																																						
Mislabeled ☐																																																																						
Fit/Function ☐																																																																						
Misaligned/off center ☐																																																																						
Positioned Wrong ☐																																																																						
Outside Dimensions ☐																																																																						
Over/Under tolerance ☐																																																																						
Part Incorrect ☐																																																																						
Part Lost/Missing ☐																																																																						
Part Moved ☐																																																																						
Drawing ☐																																																																						
Finish ☐																																																																						
Misread ☐																																																																						
Turning Sequence ☐																																																																						
OTHER : _____																																																																						

Work Order ID 137533

Monday, October 05, 2015 11:16:17 AM

137533

Page 2

Item ID: D6201 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: "T" Extrusion
Start Date: 10/5/2015 Start Qty: 20.00 ***20*** Cust Item ID:
Required Date: 10/5/2015 Req'd Qty: 20.00 ***20*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.00							
Packaging	Ensure material certification is attached								
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00							
Quality Control	Ensure Material certification comply to Dwg D6104 ?								
130	Identify as per dwg & Stock Location: _____	0.00							
130									
Packaging	Memo	0.00							
Packaging	LOCATION: MAT028								

OCT 14 2014

DAS
6
9-89

20 15-10-16

DAS
9
9-89

20 15-10-16

DAS
9
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Work Order ID 137533***137533***

Page 3

Item ID: D6201

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: "T" Extrusion

Stop ***NS2***

Start Date: 10/5/2015 Start Qty: 20.00

20

Cust Item ID:

Required Date: 10/5/2015 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.00

Quality Control

MLJ

NOV 19 2015

MLJ

NOV 19 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

Monday, October 05, 2015 11:16:20 AM

Page 1

Work Order ID: 137533

137533

Parent Item: D6201

D6201

Parent Item Name: "T" Extrusion

Start Date: 10/5/2015

Required Date: 10/5/2015

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP A: 01.05.15New Issue EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6201P		Purchased	No			110	f	0.0000	1	20			

D6201P

T Extrusion 4X4X3/8

OCT 14 2015

DAS
6
9-88

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

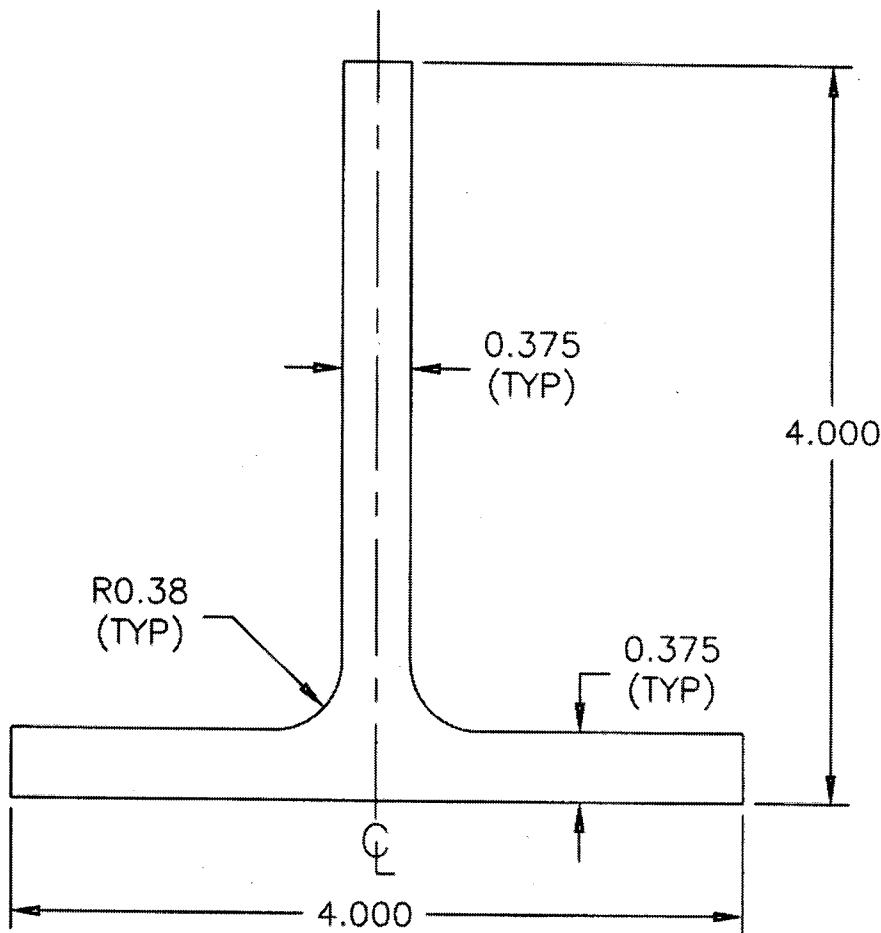
Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																		
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																		
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																		
Large Fab ☐	Composite ☐	Supplier ☐																			
Date : 15.10.16	Step #:	QTY Effective :		MRB (QSI042) Approval A.P. 15.10.16																	
Description Work Order Deviation		Disposition																			
MATERIAL IS ASTM B221 INSTEAD OF QQ-A-204/8. PER ATTACHED "NOTICE OF CANCELLATION" THEY ARE EQUIVALENT.		ACCEPTABLE PER ATTACHED		Completed By																	
				Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
OTHER : ☐																					



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6201	REV. A SHEET 1 OF 1
DATE 01.04.10		TITLE T-BEAM EXTRUSION	SCALE 1:1
A	01.04.10	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
01.04.23 *[Signature]*



D6201-XXX T-BEAM EXTRUSION
WHERE XXX IS LENGTH IN INCHES

EG.
D6201-027 IS 27 INCHES LONG

PURCHASE MATERIAL: ALUMINUM "T"-EXTRUSION ROUND FILLET
4.000" x 4.000" x 0.375"

6061-T6/T6511 (QQ-A-200/8)

MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi

MINIMUM YIELD TENSILE STRENGTH = 35 ksi

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 137538 MCH
157005

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

Copyright © 2001 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



935, boul. du Hâvre
Valleyfield, Québec
J6S 5L1

Valleyfield

Tél.: 450 377-4248

Fax : 450 377-5696

Montréal

Tél.: 514 336-4248

Fax : 514 336-4246

Ontario

Tél.: 1 800 667-4248

Fax : 1 866 456-4242

66525
DISTRIBUTEUR D'ACIER ET DE MÉTAUX SPÉCIALISÉS
STEEL AND SPECIALTY METALS DISTRIBUTOR

www.aciercampi.com

VENDU À / SOLD TO :

613-632-5200

613-632-1053

EXPÉDIEZ À / SHIP TO :

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY,
ONTARIO
K6A 1K7

EQUIP: LIFT

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY,
ONTARIO
K6A 1K7

COMMANDE
ORDER

N° 254976

DATE 09/10/15

BON DE LIVRAISON
PACKING SLIP

N°

DATE DE LIVRAISON
DELIVERY DATE 14/10/15

VOTRE N° DE COMMANDE / YOUR P.O. N° P030046	VEND./SALESM. V	CODE CLIENT / CUST. CODE DAER	EXPÉDIER PAR / SHIP VIA 12345	TERMES / TERMS NET 30 JOURS	TERR. 2R	REMARQUES / REMARKS PES	PAGE N° 001
--	--------------------	----------------------------------	----------------------------------	--------------------------------	-------------	----------------------------	----------------

CODE DE PRODUIT PRODUCT CODE	COMMANDE ORDERED	EXPÉDIÉ SHIPPED	DESCRIPTION	POIDS WEIGHT	PRIX PRICE	PAR PER *	MONTANT AMOUNT
M	1	1000	MILL TEST "T" ALU D6201 4x4x3/8 1X 20' Coffee tube 15/10/14 SD	1.00			

* Unités de mesure : CLB Cent (100) livres Hundred pounds CFI Cent (100) pieds Hundred feet UN Unité Unit PI Pieds Feet PC Pied carré Square foot

POIDS TOTAL
TOTAL WEIGHT

CONDITIONS :

LES MATÉRIAUX LIVRÉS ET FACTURÉS SELS QUE DÉCRITS DEMEURENT LA PROPRIÉTÉ DE "ACIER CAMP I INC." JUSQU'À PARFAIT PAIEMENT COMPLET. ENCAISSÉ. • LES RISQUES DE PERTE DU BIEN SONT À LA CHARGE DE L'ACHETEUR. • LA GARANTIE DE QUALITÉ DU MATÉRIEL EST LA MÊME QUE CELLE DU FABRIQUANT. • L'ACHETEUR S'ENGAGE À RESPECTER LES CONDITIONS SUIVANTES : NET 30 JOURS DE LA DATE DE FACTURATION, ET TOUT COMPTE IMPAYÉ DANS LES 30 JOURS ENTRAÎNE DES FRAIS DE 2% PAR MOIS (24% PAR ANNÉE) OUI, ACCEPTÉ DE PAYER. • TOUT DÉFAUT D'EXÉCUTION L'UNE OU L'AUTRE DES OBLIGATIONS EN VERTU DU PRÉSENT CONTRAT ENTRAÎNE LA DÉCHÉANCE DU TERME ET PERMET AU VENDEUR, À SON CHOIX, DE RÉCLAMER TOUT SOLDE DU PRIX DE VENTE DU BIEN VENDU. • TOUTE RÉCLAMATION DOIT ÊTRE FAITE DANS LES CINQ JOURS SUR PRÉSENTATION DE CE DOCUMENT. • TOUTE MARCHANDISE ENDOMMAGÉE, ALTÉRÉE OU COUPÉE NE PEUT ÊTRE REPRISE. • AUCUN RETOUR DE MARCHANDISE NE SERA ACCEPTÉ SANS NOTRE AUTORISATION. • TOUTE MARCHANDISE RETOURNÉE EST SUJETTE À DES FRAIS DE MANUTENTION DE 25%.

CONDITIONS :

ALL SOLD AND DELIVERED MATERIALS REMAIN THE PROPERTY OF "ACIER CAMP I INC." UNTIL PAYMENT IS MADE FULL, COMPLETE AND CASHED. • ALL LOST MATERIALS ARE AT THE BUYER'S EXPENSE. • ALL MATERIALS BEAR THE SAME WARRANTY AS GIVEN BY THE MANUFACTURER. • THE BUYER HEREBY ACCEPTS TO RESPECT THE FOLLOWING CONDITIONS: NET 30 DAYS FROM BILLING DATE AND THE BUYER ACCEPTS TO PAY ADMINISTRATION CHARGES OF 2% PER MONTH OR 24% PER ANNUM ON ALL PAST DUE ACCOUNTS OVER 30 DAYS. • ANY DEFAULT IN RESPECT WITH THIS CONTRACT WILL LEAD TO PAYMENT BY ACCELERATION AND PERMITS TO THE SELLER, AT HIS CHOICE TO CLAIM FOR THE BALANCE DUE OR THE REPOSSESSION OF THE GOODS SOLD. • ANY CLAIM MUST BE MADE WITHIN FIVE DAYS WITH THIS DOCUMENT ENCLOSED. • ANY MERCHANDISE THAT HAS BEEN DAMAGED, CUT OR MODIFIED CANNOT BE RETURNED. • ALL GOODS RETURNED MUST BE WITH OUR AUTHORIZATION AND ARE SUBJECT TO A 25% RESTOCKING CHARGE.

SOUS-TOTAL
SUB TOTAL

T.P.S.
G.S.T.

T.V.Q. / T.V.H.
G.S.T. / H.S.T.

TOTAL

PRÉPARÉ PAR / PREPARED BY: VÉRIFIÉ PAR / VERIFIED BY:

LIVRÉ PAR / DELIVERED BY: HEURE / TIME

MARCHANDISE RECUE EN BONNE CONDITION / MERCHANDISE RECEIVED IN GOOD CONDITION

X [Signature] A/Y M/M J/D 15 10 14

DATE

N° ENR. TPS / GST REG. N° 822 435 970 RT 0001 • N° ENR. TVQ / QST REG. N° 122 127 8280 TQ 0001

SCRIPTO-1971



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO30046**

Purchase Order Date 10/7/2015

PO Print Date 10/7/2015

Page Number 1 of 2

Order From :

VC-CAM002

Ship To : DART AEROSPACE LTD

CAMPI STEEL
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

PAID

Contact Name

Vendor Phone 800 667 4248

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Ship To Contact

Terms

Net 30

Ship To Phone

Currency

CAD

Ship Via:

Yours ppd

FOB

FCA - (Free Carrier)

Ship Acct:

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
----------	---	------------------------	--------------------------------------	----	--------------------------------	---------------	-------------------

1	D6201P	T Extrusion 4X4X3/8	10/13/2015 Yes 10/13/2015		20.00 f	\$20.50	\$410.00
---	--------	---------------------	---------------------------------	--	------------	---------	----------

AS PER DWG D6201 REV. A
B137533
SIZE: 4.00" X 4.00" X 0.375"

Line Total: \$410.00

2	71550-15	6061-T6 ROUND BAR 4"	10/13/2015 Yes 10/13/2015		1.00 f	\$57.05	\$57.05
---	----------	----------------------	---------------------------------	--	-----------	---------	---------

10/10/14
SP

Line Total: \$57.05

Deliver To: JEAN-LUC

Note:

10/7/2015



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO30046**

Purchase Order Date 10/7/2015

PO Print Date 10/7/2015

Page Number 2 of 2

Order From :

VC-CAM002

Ship To : DART AEROSPACE LTD

CAMPI STEEL
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 800 667 4248

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

3	71401-45	PROCUREMENT QUALITY CLAUSES	10/13/2015	1.00	\$0.00	\$0.00
---	----------	--------------------------------	------------	------	--------	--------

No

Procurement Quality Clauses

10/13/2015

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

Line Total: \$0.00

PO Total: \$467.05

CL

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 1

Change Date: 10/7/2015



935, boul. du Havre
Valleyfield, Québec
J6S 5L1
Valleyfield
Tél.: 450 377-4248
Fax : 450 377-5696

Montréal
Tél.: 514 336-4248
Fax : 514 336-4246
Ontario
Tél.: 1 800 667-4248
Fax : 1 866 456-4242

DISTRIBUTEUR D'ACIER ET DE METAUX SPÉCIALISÉS
STEEL AND SPECIALTY METALS DISTRIBUTOR

www.aciercampi.com

VENDU À / SOLD TO :

613-632-5200

613-632-1053

EXPÉDIEZ À / SHIP TO :

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY,
ONTARIO
K6A 1K7

EQUIP: LIFT

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY,
ONTARIO
K6A 1K7

COMMANDE
ORDER

N° 254976

DATE

09/10/15

BON DE LIVRAISON
PACKING SLIP

N°

DATE DE LIVRAISON
DELIVERY DATE

14/10/15

VOTRE N° DE COMMANDE / YOUR P.O. N° P030046	VEND./SALESM. V	CODE CLIENT / CUST. CODE DAER	EXPÉDIER PAR / SHIP VIA 12345	TERMES / TERMS NET 30 JOURS	TERR. 2R	REMARQUES / REMARKS	PAGE N° 001
--	--------------------	----------------------------------	----------------------------------	--------------------------------	-------------	---------------------	----------------

CODE DE PRODUIT PRODUCT CODE	COMMANDE ORDERED	EXPÉDIÉ SHIPPED	DESCRIPTION	POIDS WEIGHT	PRIX PRICE	PAR PER	MONTANT AMOUNT
			MILL TEST				
	1		"T" ALU D6201 4x4x3/8 1 X 20' heat: 852198	1.00			

* Unités de mesure : CLB Cent (100) livres Hundred pounds CPI Cent (100) pieds Hundred feet UN Unit Unit PI Pied Foot PC Pied carré Square foot

POIDS TOTAL
TOTAL WEIGHT 1

CONDITIONS :

LES MATÉRIAUX LIVRÉS ET FACTURÉS TELS QUE DÉCRITS DEMEURENT LA PROPRIÉTÉ DE «ACIER CAMPI INC.» JUSQU'À PAIEMENT COMPLET ENCAISSÉ. • LES RISQUES DE Perte DU BIEN SONT À LA CHARGE DE L'ACHETEUR. • LA GARANTIE DE QUALITÉ DU MATÉRIEL EST LA MÊME QUE CELLE DU FABRICANT. • L'ACHETEUR S'ENGAGE À RESPECTER LES CONDITIONS SUIVANTES : NET 30 JOURS DE LA DATE DE FACTURATION, ET TOUT COMPTE IMPAYÉ DANS LES 30 JOURS ENTRAÎNE DES FRAIS DE 2% PAR MOIS (24% PAR ANNÉE) QU'IL AGIT D'UN DÉFAUT DE PAYER. • TOUT DÉFAUT D'EXÉCUTION L'UNE OU L'AUTRE DES OBLIGATIONS EN VERTU DU PRÉSENT CONTRAT ENTRAÎNE LA DÉCHÉANCE DU TERME ET PERMET AU VENDEUR, À SON CHOIX, DE RÉCLAMER TOUT SOLDE DU PRIX DE VENTE OU DE REPRISE LE BIEN VENDU. • TOUTE RÉCLAMATION DOIT ÊTRE FAITE DANS LES CINQ JOURS SUR PRÉSENTATION DE CE DOCUMENT. • TOUTE MARCHANDISE ENDOMMAGÉE, ALTÉRÉE OU COMPLÈTEMENT DÉFECTUEUSE NE PEUT ÊTRE REPRISE. • AUCUN RETOUR DE MARCHANDISE NE SERA ACCEPTÉ SANS NOTRE AUTORISATION. • TOUTE MARCHANDISE RETOURNÉE EST SUJETTE À DES FRAIS DE MANUTENTION DE 25%.

CONDITIONS :

ALL SOLD AND DELIVERED MATERIALS REMAIN THE PROPERTY OF "ACIER CAMPI INC." UNTIL PAYMENT IS MADE FULL, COMPLETE AND CASHED. • ALL LOST MATERIALS ARE AT THE BUYER'S EXPENSE. • ALL MATERIALS BEAR THE SAME WARRANTY AS GIVEN BY THE MANUFACTURER. • THE BUYER HEREBY ACCEPTS TO RESPECT THE FOLLOWING CONDITIONS: NET 30 DAYS FROM BILLING DATE AND THE BUYER ACCEPTS TO PAY ADMINISTRATION CHARGES OF 2% PER MONTH OR 24% PER ANNUM ON ALL PAST DUE ACCOUNTS OVER 30 DAYS. • ANY DEFAULT IN RESPECT WITH THIS CONTRACT WILL LEAD TO PAYMENT BY ACCELERATION AND PERMITS TO THE SELLER, AT HIS CHOICE TO CLAIM FOR THE BALANCE DUE OR THE REPOSSESSION OF THE GOODS SOLD. • ANY CLAIM MUST BE MADE WITHIN FIVE DAYS WITH THIS DOCUMENT ENCLOSED. • ANY MERCHANDISE THAT HAS BEEN DAMAGED, CUT OR MODIFIED CANNOT BE RETURNED. • ALL GOODS RETURNED MUST BE WITH OUR AUTHORIZATION AND ARE SUBJECT TO A 25% RESTOCKING CHARGE.

SOUS-TOTAL
SUB TOTAL

T.P.S.
G.S.T.

T.V.Q. / T.V.H.
G.S.T. / H.S.T.

TOTAL

PRÉPARÉ PAR / PREPARED BY

VÉRIFIÉ PAR / VERIFIED BY

LIVRÉ PAR / DELIVERED BY

HEURE / TIME

MARCHANDISE REÇUE EN BONNE CONDITION / MERCHANDISE RECEIVED IN GOOD CONDITION

X

A/Y M/M J/D

N° ENR. TPS / GST REG. N° 822 435 970 RT 0001 • N° ENR. TVQ / QST REG. N° 122 127 8280 TQ 0001

SIGNATURE DU CLIENT / CUSTOMER'S SIGNATURE

DATE

SCRIPTO-1971

CERTIFICATE OF COMPLIANCE

05/31/2015		5357009	118419	1
PO37686		020749	852188	05/31/15
42081 A S A ALLOYS INC. 81 STEINWAY BOULEVARD ETOBICOKE, ON M9W 6H6 CANADA		42081 A S A ALLOYS INC. 81 STEINWAY BOULEVARD ETOBICOKE, ON M9W 6H6 CANADA		
002	C-031522-10	240" MILL 8081 T8511	3/8X4X4" TEE ALUMINUM	
	774 LBS			
	752 LBS	11 PCS	1 PKGS	
ASTM B221-08				

Mechanical Tests:

<u>Tensile</u>		<u>Yield</u>	<u>% Elongation</u>	<u>Conductivity</u>	<u>HRE</u>
<u>MPA / KSI</u>	<u>MPA / KSI</u>				
334.5 / 48.5	304.2 / 44.1	15.4	N/A	92	

Chemical Analysis:

<u>Si</u>	<u>Fe</u>	<u>Cu</u>	<u>Mn</u>	<u>Mg</u>	<u>Cr</u>	<u>Zn</u>	<u>Ti</u>	<u>V</u>	<u>Zr</u>
0.60	0.24	0.19	0.08	0.87	0.08	0.08	0.02	0.01	0.00

This Material is Made in Canada

This Material is RoHS Compliant

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

S. Mazzotta
Director of Quality
Signature Aluminum Canada Inc

ISO 9001/TS16949 Registered Company

Visit us at www.signaturealum.com

MATERIAL RECEIPT INSPECTION FORM

MATERIAL D6201
DATE 15/10/15

PO / BATCH NO 30046/137533

MATERIAL CERT REC'D yes
QUANTITY RECEIVED 20
QUANTITY INSPECTED 20
QUANTITY REJECTED _____

THICKNESS ORDERED 4.00X4.00X.375
THICKNESS RECEIVED 4.00X3.990X.375
SHEET SIZE ORDERED _____
SHEET SIZE RECEIVED _____

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y ☒ N	
CORRECT FINISH	☒ Y ☐ N	
CORROSION	Y ☒ N	
CORRECT GRAIN DIRECTION	☒ Y ☐ N	
CORRECT MATERIAL	☒ Y ☐ N	
CORRECT THICKNESS	☒ Y ☐ N	
PHOTO REQUIRED	Y ☒ N	
CORRECT MATERIAL	☒ Y ☐ N	
CORRECT REF # TO LINK CERT	☒ Y ☐ N	
CORRECT MATERIAL IDENTIFICATION	☒ Y ☐ N	
CORRECT M# ON THE MATERIAL	☒ Y ☐ N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y ☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y ☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____		
DATE: <u>15/10/15</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

INSTRUCTIONS FOR INSPECTING BAR, TUBING, ROUND, & SHEET STOCK

- 1- VERIFY STOCK TO DART PURCHASE ORDER
- 2- MEASURE ALL DIMENSIONS FOR EACH PURCHASED STOCK
 - a WIDTH, THICKNESS, DIAMETER, WALL THICKNESS & LENGTH
- 3- VERIFY CONDITION OF MATERIAL i.e. DAMAGED, CORRODED, etc
- 4- VERIFY THAT SUPPLIER HAS A NUMBER (HEAT #) ON ITS RECEIVING REPORT TO LINK TO MATERIAL CERTS
- 5- VERIFY MATERIAL CERTS ARE CORRECT TO THE DART PO INSTRUCTIONS
- 6- REMOVE / CUT A PIECE OF MATERIAL FOR SAMPLE HARDNESS TESTING

INSTRUCTIONS FOR INSPECTING SKIDTUBE & STEP EXTRUSION

- 1- VERIFY TO DART SUPPLIED DRAWING
 - 2- SAMPLE INSPECT MATERIAL IN BUNDLE TO ENSURE MATERIAL CAN BE RECEIVED INTO DART
 - 3- USING PORTABLE HARDNESS TESTER VERIFY HARDNESS OF THE MATERIAL TO THE DRAWING
 - 4- VERIFY THAT MATERIAL CERTS MATCH TO WHAT'S CALLED UP ON THE DART DRAWING
- AFTER MATERIAL PASSES INSPECTION**
- 5- HAVE DART EMPLOYEES START STOCKING MATERIAL BUT REQUEST MIN 20pcs FOR FULL INSPECTION
 - 6- INSPECT ALL DIMS AS PER DRAWING REQUIREMENTS

INSTRUCTIONS FOR INSPECTING CROSS TUBE MATERIAL

- 1- VERIFY MATERIAL CERTS MATCH THE REQUIREMENTS ON THE DART DRAWINGS
- 2- INSPECT MIN HALF THE BATCH OF EXTRUSION RECEIVED INTO DART
- 3- INSPECT MATERIAL AS PER THE EXTRUSION REPORT
 - a WALL THICKNESS USING ULTRA-SONIC IN 4 LOCATIONS
 - b OUTSIDE DIAMETER HIGHEST/LOWEST BOTH ENDS
 - c INSIDE DIAMETER HIGHEST/LOWEST BOTH ENDS
 - d STRAIGHTNESS @ CENTER OVER 12" SPAN
 - e WALL THICKNESS USING TUBE MICROMETER HIGHEST/LOWEST BOTH ENDS
- 4- IDENTIFY EACH TUBE IN SEQUENCE OF INSPECTING (TUBE 1, TUBE2) AND W/O# AND PO#
- 5- RECORD ALL FINDINGS ON EXTRUSION REPORT

IF ANY QUESTIONS PLEASE SEE QC COORDINATOR BEFORE GOING FURTHER

NOTICE
OF CANCELLATION

INCH-POUND

QQ-A-200/8F
NOTICE 5
26 November 2002
SUPERSEDING
NOTICE 4
7 April 1998

FEDERAL SPECIFICATION

ALUMINUM ALLOY 6061, BAR, ROD, SHAPES, TUBE AND WIRE, EXTRUDED

QQ-A-200/8F, dated 8 November 1983, is hereby canceled. Future acquisition for this material should refer to the following:

For aerospace and unspecified applications use SAE Aerospace Materials Specification (AMS) AMS-QQ-A-200/8, "Aluminum Alloy 6061, Bar, Rod, Shapes, Tube, and Wire, Extruded UNS A96061".

For non-aerospace applications use American Society for Testing and Materials (ASTM) specifications ASTM B241, "Standard Specification for Aluminum and Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube", for Type I; ASTM B221, "Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes", for Type II.

(Application for copies of ASTM publications should be addressed to the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or copies of AMS publications should be addressed to the SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001.)

Custodians:

Army - MR
Navy - AS
Air Force - 11

Preparing activity:
DLA-IS

(Project 9530 - 0571 - 008)

AMSC N/A

FSC 9530

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

Page 1 of 1

All amounts are calculated in domestic currency.

[illegible]



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO30136**

Purchase Order Date 10/15/2015

PO Print Date 10/15/2015

Page Number 1 of 2

Order From :

VC-MET002

Ship To : DART AEROSPACE LTD

METAUX SOLUTIONS
2625 BOUL JACQUES-CARTIER EST
LONGUEUIL, QC J4N 1L7
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

RUSH

Contact Name

Vendor Phone 800 558 8858

Ship To Contact

Ship To Phone

Ship Via: Purolator ground collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
----------	---	------------------------	--------------------------------------	----	--------------------------------	---------------	-------------------

1	M316R1.000	316 round bar 1.00	10/16/2015 Yes 10/16/2015		12.00 f	\$16.00	\$192.00
---	------------	--------------------	---------------------------------	--	------------	---------	----------

MATERIAL: 316 SS ROUND BAR AS PER AMS 5524

304 NOT ACCEPTABLE

NOTE: PLEASE CUT BAR IN 1/2 AND SHIP PUROLATOR ACCT: 7684382

Line Total: \$192.00

2	71401-45	PROCUREMENT QUALITY CLAUSES	10/16/2015 No 10/16/2015		1.00 <i>15/10/16</i> <i>SD</i>	\$0.00	\$0.00
---	----------	--------------------------------	--------------------------------	--	--------------------------------------	--------	--------

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

Note:

10/15/2015



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO30136**

Purchase Order Date 10/15/2015

PO Print Date 10/15/2015

Page Number 2 of 2

Order From :

VC-MET002

METAUX SOLUTIONS
2625 BOUL JACQUES-CARTIER EST
LONGUEUIL, QC J4N 1L7
CA

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

800 558 8858

Ship To Contact

Ship To Phone

Ship Via:

Purolator ground collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Line Total: \$0.00

PO Total: \$192.00

CL

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 1

Change Date: 10/15/2015

METAUX SOLUTIONS INC
2625 BOUL JACQUES CARTIER EST
LONGUEUIL, QUEBEC
J4N 1L7 **Tel. : 450 641-3330**

Bid 15/10/2015 15401

Sales Rep. : JEROME PRIMEAU
Reference : CHANTAL
Expiration Date : 13/01/2016

Customer : 6323336

DART AEROSPACE LTD
1270, ABERDEEN STREET
HAWKESBURY, ONTARIO
K6A 1K7

Ship To :

Same

Tel.: 1 613 632-3336

<i>Item No.</i>	<i>Description</i>	<i>Qty</i>	<i>Price</i>	<i>Total</i>	<i>Tx</i>
SR16	316 ROU 1.000 DIA 1 X 12' STOCK	12	16.00	192.00	A



Subtotal			192.00
A) Regist :			HST : 24.96
Total :			216.96

Shipping Order

15/10/2015

METAUX SOLUTIONS INC
2625 BOUL JACQUES CARTIER EST
LONGUEUIL, QUEBEC
J4N 1L7 Tel.: 450 641-3330

Order : 109875
Reference : 30136
Bid : 15401
Ship : PICK UP / PICK UP

Customer: 6323336

DART AEROSPACE LTD
1270, ABERDEEN STREET
HAWKESBURY, ONTARIO
K6A 1K7

Ship To

Same

Tel.: 1 613 632-3336

Item No.	Description	Qty	Qty. Deliver	B/O Qty
SR16	316 ROU 1.000 DIA 2 X 6' HT;R9V9	12	12	9

34 lbs

SHIP PURO COLLECT #7684382

JP

Shipping : _____

Ref. : _____

Package No : _____

Merchandise Received: _____



METALLURGICAL TEST REPORT

North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

740 Imperial Road North

Certificate: 28658 14 Mail To:

Ship To:

Date: 2/04/2015 Page: 1

Customer: 007080 002 1

Steel: 316/316L

Finish: CD

Your Order: BN4542

NAS Order: IN 0204604 04

Corrosion: ASTM A262 Prac E OK

Red Ratio: 59.4 :1

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw
UNS 31600/31603 EN 10204 3.1, ASTM A484/13a
ASTM A276/13, ASTM A479/13a, ASTM A182/13 CHEM ONLY,
ASME SA479/13, ASME SA182/10 CHEM ONLY, ASTM F899/11
AMS 5648L/AMS 5653H, AMS QQS-763C, QQS 763F
SOLUTION ANNEAL TEMP 1900F MIN, ASTM A320/08 CL 1 GR B8M
ASTM A193/10A-ASME SA193/10 CL 1 GR B8M

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE
2011/65/EU RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
B09048 1		1.0000		655	144.00	6	1	

CHEMICAL ANALYSIS											
Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323											
HEAT	CH	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %	
RSV9	US	.0130	.2305	16.5230	.3445	1.3525	2.0005	.0466	10.5400	.0315	
		S %	SI %								
		.0280	.3550								

MECHANICAL PROPERTIES

Product Id	1 d	MS	.2YS	UTS	RA	Elong
	o x	No.	KSI	KSI	%	% 4D
B09048 1	R L	194.0	75.17	100.64	71.45	42.87

QC REVIEWED
FEB 05 2015
[Signature]

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

[Signature]

ABHIJEET BHAVE - 2/04/2015

SENDER ACCOUNT NO. N° DE COMPTE DE L'EXPÉDITEUR		IMPORTANT TELEPHONE (450) 641 3330		SHIP MODE / MODE DE TRANSPORT		BILL OF LADING NO. NOT NEGOTIABLE N° DE CONNaisseMENT NON NEGOCIABLE	
SENDER (FROM) / EXPÉDITEUR (DE)		MO. DY/JR YR/AN		AIR AERIEN ☐ GROUND ROUTIER ☒		1349 945 2533	
STREET ADDRESS / ADRESSE (N° ET RUE)		APT. SUITE / APP. BUREAU		PKG / BALANCE		SERVICE	
METAL SOLUTIONS				PURC. LETTER ☐ 9 AM ☐		10:30 AM ☐	
2625 BOUL JACQUES-CARTIER				PURC. PAK ☐ 10:30 AM ☐		10h30 ☐	
CITY / VILLE		PROV. / STATE / ETAT		OTHER AUTRE ☐ SAT. ☐			
LONGUEUIL		QC		J4N 1L7			
RECEIVER (TO) / DESTINATAIRE (A)		APT. SUITE / APP. BUREAU		PAYMENT / PAIEMENT		COURIER INITIALS INITIALES DU COURRIER	
1270 Aberdeen Street				CASH CONSTANT ☐ CREDIT CARD CARTE DE CREDIT ☐		COURIER ROUTE ITINÉRAIRE DU COURRIER	
Hawkesbury, Ontario K6A 1K7				RECEIVER OR THIRD PARTY ACCOUNT NO. / N° DE COMPTE DU DESTINATAIRE OU TIERS		MO DY/JR YR/AN	
Dart Aerospace				RECEIVER DESTINATAIRE ☒ 3RD PARTY TIERS ☐		10 15 15	
ATTN: (NAME / DEPT.) A L'ATTENTION DE (NOM / SERVICE)		IMPORTANT TELEPHONE		DECLARED VALUE / VALEUR DÉCLARÉE		TOTAL AMOUNT / MONTANT TOTAL	
		1636323336		DECLARED VALUE / VALEUR DÉCLARÉE		7684382	
DESCRIPTION (INCLUDING DANGEROUS GOODS / INCLUANT MARCHANDISES DANGEREUSES)		✓ DG ☐ NO ☒		WEIGHT / POIDS		THIRD PARTY BILLING NAME & ADDRESS / FACTURATION À UN TIERS (NOM & ADRESSE)	
				1 34			
SENDER REFERENCE (IF ANY) / REF. DE L'EXPÉD.		PICK UP / CUEILLETTE - N° DE CONF.		DECLARED VALUE / VALEUR DÉCLARÉE		PLEASE REFER TO BILL OF LADING NUMBER FOR SHIPMENT STATUS / INQUIRIES.	
62445786		0026		DECLARED VALUE / VALEUR DÉCLARÉE		POUR TOUT RENSEIGNEMENT, VEUILLEZ NOUS COMMUNIQUER LE NUMÉRO DE CONNaisseMENT.	
SENDER SIGNATURE / SIGNATURE DE L'EXPÉDITEUR		2745333		DECLARED VALUE / VALEUR DÉCLARÉE			
SEE CONDITIONS OF CARRIAGE ON REVERSE / CONDITIONS DE TRANSPORT AU VERSO				DECLARED VALUE / VALEUR DÉCLARÉE			

SENDER RETAIN THIS COPY / COPIE DE L'EXPÉDITEUR

Shipping Order

15/10/2015

METAUX SOLUTIONS INC
2625 BOUL JACQUES CARTIER EST
LONGUEUIL, QUEBEC
J4N 1L7 *Tel. : 450 641-3330*

Order : 109875
Reference : 30136
Bid : 15401
Ship : PICK UP / PICK UP

Customer : 6323336

Ship To

DART AEROSPACE LTD
1270, ABERDEEN STREET
HAWKESBURY, ONTARIO
K6A 1K7

Same

Tel.: 1 613 632-3336

<i>Item No.</i>	<i>Description</i>	<i>Qty</i>	<i>Qty. Deliver</i>	<i>B/O Qty</i>
SR16	316 ROU 1.000 DIA 2 X 6' HT;R9V9	12	12	9

34 lbs

SHIP PURO COLLECT #7684382
JP

Shipping : _____
Package No : _____

Ref. : _____

Merchandise Received: _____

